

ABSTRACT

IDENTIFICATION OF GENES

- 5 A-method for identifying a microorganism having a reduced adaptation to a particular environment comprising the steps of:
- (1) providing a plurality of microorganisms each of which is independently mutated by the insertional inactivation of a gene with a nucleic acid comprising a unique marker sequence so that each mutant
 - 10 contains a different marker sequence, or clones of the said microorganism;
 - (2) providing individually a stored sample of each mutant produced by step (1) and providing individually stored nucleic acid comprising the unique marker sequence from each individual mutant;
 - (3) introducing a plurality of mutants produced by step (1) into the
 - 15 said particular environment and allowing those microorganisms which are able to do so to grow in the said environment;
 - (4) retrieving microorganisms from the said environment or a selected part thereof and isolating the nucleic acid from the retrieved microorganisms;
 - 20 (5) comparing any marker sequences in the nucleic acid isolated in step (4) to the unique marker sequence of each individual mutant stored as in step (2); and
 - (6) selecting an individual mutant which does not contain any of the marker sequences as isolated in step (4).

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(Figure No 1)